

REMARKS

Claims 1-16, 20 and 21 are active.

Claims 1, 20 and 21 have been amended to define that the coronary obstruction and peripheral vasoconstriction are caused by an impaired peripheral production of nitric oxide as described in the specification, e.g., page 4, lines 16-23, page 5, lines 1-8, page 36, lines 23-26 and the Examples.

No new matter is added.

The rejection at issue is of Claim 1-16, 20 and 21 under 35 USC 103(a) as being unpatentable over Liu et al (U.S. 2002/0025126) in view of Sowers et al (Hypertension 2001) and Parissis (International Journal of Cardiology, 2002) as set forth in the final Office Action of November 14, 2008.

On July 15 ,2011, the Board affirmed the Examiner's rejection and maintains that the claims would have been obvious in view of the above citations. In rendering its decision the Board recognized the differences between coronary obstruction and peripheral vasoconstriction compared to diabetes or obesity as in the Liu reference. However, the Board affirmed the rejection because the scope of the patients defined in the claims are perceived as including a significant number of diabetic patients and thus when the compounds of Liu are administered to diabetic and/or obese patients as taught by Liu the coronary conditions would also be treated. The Board, also citing the Sowers reference, agreed with the Examiner that there is a significant overlap between diabetic and cardiovascular patients that would have led one to administer the compounds of Liu to treat such cardiovascular conditions, presumably by reducing the diabetic state of the overlapping patient population. See also the Board's decision on page 9, second paragraph and their notation that the claims encompass diabetic patients on page 10, second paragraph.

While Applicants continue to disagree with the basis of the rejection, the Applicants have amended the claims to define a patient population that differs from what is taught in the cited art of Liu, Sowers and Parissis. That is, the coronary obstruction or peripheral vasoconstriction are those that are caused by an impaired peripheral production of nitric oxide. Impairment of nitric oxide production is not correlated to diabetic conditions. Therefore, the claimed method is independent of the diabetic condition and the treatment of diabetic conditions in the cited art would not necessarily also treat the type of coronary obstruction or peripheral vasoconstriction that are caused by an impaired peripheral production of nitric oxide.

There is no suggestion in the combined teachings of the cited art that PTP1B inhibitors of the present invention could directly modulate NO production as is described and demonstrated in the present application and in turn treat a patient with coronary obstruction or peripheral vasoconstriction from the teachings of treating diabetes and/or the correlation between diabetes and coronary conditions as asserted in the rejection and as affirmed by the Board. Indeed, there is no evidence in the record that nitric oxide modulation has anything to do with diabetes and/or diseases that are associated therewith.

Sowers teaches that cardiovascular diseases is a complication of diabetes and that these two chronic diseases frequently co-exist. Sowers provides information on how specific antihypertensive therapeutic programs can impact the progression of diabetes.

Although Sowers establishes that ACE inhibitors may impact the progression of diabetes (see in particular HOPE trial on page 1055) Sowers does not provide any indication as whether an antidiabetic agent, like the compounds of the present application, would impact cardiovascular diseases that are caused by impaired peripheral production of nitric oxide as claimed.

A reasonable expectation of success to treat cardiovascular disorders caused by impaired peripheral production of nitric oxide with PTP1B inhibitors has not been established as no biological link is established between PTPIB and cardiovascular disorders.

Based on these considerations, the teaching of Parissis, as peripheral vasoconstriction is associated with hypertension, is not relevant.

Reconsideration and withdrawal of the rejection is requested.

A Notice of Allowance for all pending claims is also requested.

Respectfully submitted,

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